## **CLAIMS**

1. A compound of the formula (I):

$$\begin{array}{c|c}
R^1 \\
R^2
\end{array}$$

$$\begin{array}{c|c}
A \\
N \\
X
\end{array}$$

$$\begin{array}{c|c}
R^3 \\
R^4
\end{array}$$
(I)

## wherein

d)

ring A is an azetidine ring which may have further
substituent(s),

X is oxygen, sulfur or nitrogen which may have substituent(s),

 $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are each independently, hydrogen, a hydrocarbon group which may have substituent(s),  $-SO_2R^5$  or a heterocyclic ring which may have substituent(s),

R<sup>5</sup> is a hydrocarbon group which may have substituent(s),

 $R^1$  and  $R^2$ , and  $R^3$  and  $R^4$  may be taken together to form an N-containing heterocyclic ring group which may have further substituent(s).

a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof.

- 2. The compound according to claim 1, wherein X is oxygen.
- 3. The compound according to claim 1, wherein  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are each independently, hydrogen, a hydrocarbon group which may have substituent(s), or a heterocyclic ring group which may have substituent(s).

4. The compound according to claim 1, which is a compound of the formula (I-1):

$$\begin{array}{c|c}
R^1 \\
N \\
\hline
\end{array}$$

$$\begin{array}{c|c}
N \\
\hline
\end{array}$$

$$\begin{array}{c|c}
H \\
N \\
\hline
\end{array}$$

$$\begin{array}{c|c}
(I-1) \\
\hline
\end{array}$$

wherein

 $R^1$  and  $R^2$  are each independently hydrogen, a hydrocarbon group which may have substituent(s),  $-SO_2R^5$  or a heterocyclic ring group which may have substituent(s),

R<sup>5</sup> is a hydrocarbon group which may have substituent(s),

 $R^1$  and  $R^2$  are taken together with the adjacent nitrogen atom to form an N-containing heterocyclic ring group which may have substituent(s),

R<sup>11</sup> is any arbitrary substituent(s), and

n is 0 or an interger of 1-5, with the proviso that when n is 2 or more, the plural  $R^{11}$ s may be the same or different.

- 5. The compound according to claim 1 or 4 wherein  $R^1$  and  $R^2$  are taken together with the adjacent nitrogen atom to form an N-containing heterocyclic ring group which may further have substituent(s).
- 6. The compound according to claim 1 or 5, wherein the N-containing heterocyclic ring group is a piperidine, piperazine, or indoline ring.

- 7. The compound according to claim 1 or 4, wherein R<sup>1</sup> is a benzene ring which may have substituent(s).
- 8. The compound according to claim 1, which is selected from the group consisting of N-(3,5-dichlorophenyl)-3-(4phenylpiperidin-1-yl)azetidine-1-carboxamide, 3-(2,3dihydro-1H-indol-1-yl)-N-[3-(trifluoromethyl)phenyl]azetidine-1-carboxamide, N-(3,5dichlorophenyl)-3-(2,3-dihydro-1H-indol-1-yl)azetidine-1carboxamide. N-[3,5-bis(trifluoromethyl)phenyl]-3-(2,3dihydro-1H-indol-1-yl)azetidine-1-carboxamide, 3 - (2.3 dihydro-1H-indol-1-yl)-N-(3-phenoxyphenyl)azetidine-1carboxamide. N-[3,5-bis(trifluoromethyl)phenyl]-3-[methyl(phenyl)amino]azetidine-1-carboxamide and N-[3.5bis(trifluoromethyl)phenyl]-3-[ethyl(phenyl)amino]azetidine-1-carboxamide.
- 9. A pharmaceutical composition comprising the compound of the formula (I), a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof described in claim 1.
- 10. The pharmaceutical composition according to claim 9, which is an S1P receptor antagonist.
- 11. The pharmaceutical composition according to claim 10, which is an EDG-5 antagonist.
- 12. The pharmaceutical composition according to claim 9, which is a preventive and/or therapeutic agent for the

diseases induced by blood vessel contraction.

- 13. The pharmaceutical composition according to claim the diseases induced by blood contraction include cerebrovascular spasms disease, hypertension, pulmonary hypertension, myocardial infarction, angina pectoris and portal hypertension.
- 14. The pharmaceutical composition according to claim 9, which is a preventive and/or therapeutic agent for respiratory diseases.
- 15. The pharmaceutical composition according to claim 14, wherein the respiratory diseases include bronchial asthma and chronic obstructive pulmonary disease.
- 16. A medicament comprising a combination of the compound of the formula (I), a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof described in claim 1, and one or more member(s) selected from the group consisting of a calcium antagonist, a thrombolytic agent, a thromboxane synthase inhibitor, an endothelin antagonist, an antioxidant agent, a radical scavenger, a poly-ADP ribose polymerase inhibitor, an astrocyte-function improvement agent, a vasodilating agent and an Rho kinase inhibitor.
- 17. A method for the prevention and/or treatment of an EDG-5 mediated disease in a mammal, characterized by

administering to a mammal an effective dose of the compound of the formula (I), a salt thereof, an N-oxide thereof or a solvate thereof or a prodrug thereof

- 18. Use of the compound of the formula (I), a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof described in claim 1, for the manufacture of the preventive and/or therapeutic agent for EDG-5 mediated diseases.
- 19. A method for the preparation of the compound of the formula (I), a salt thereof, an N-oxide thereof or a prodrug thereof described in claim 1.